

Ergonomics in practice

– Standing work –

The most activities in the food and catering industry have one thing in common: they are performed in a standing position. This applies to work such as meat cutting, activities at worktables and conveyor belts in the industrial environment, dough processing in the bakery as well as food preparation in the kitchen. If the standing workstation is not ergonomically designed, the back and neck in particular are subjected to increased stress, which can lead to Musculo skeletal discomfort and long-term health restrictions.

Ergonomic design of standing workstations

The correct working height for most tasks while standing is about 10–15 centimetres below elbow height which allows back-friendly working in a more neutral posture. A lower working height of approx. 15–40 cm below elbow height is only recommended for power-intensive work. Depending on the body height of the employee, the optimum working height is between 85 and 110 centimetres above the floor.



The working height does not always correspond to the height of the table or conveyor belt. If necessary, the grip height of a box or the work object itself must be taken into account.

Height-adjustable worktables and work surfaces enable employees to adjust the working height optimally for the respective activity. This is particularly effective if the height can be adjusted easily and without tools. Alternatively, you can provide tables of different heights.



Cutting board elevations and other pads are suitable for adjusting the working height for tall employees or for short-term, fine-motor activities. A cutting board elevation is a set of stackable frames. With three frames, each 5 cm high, the working height can be raised by 15 cm.



Grates and pedestals in front of tables and other work surfaces are alternatives to adjust the working height for shorter employees. However, this can create additional tripping hazards.

Working close to the body

Manual working processes as well as gripping, setting down etc. should take place as close to the body as possible in order to avoid having to lean further forward, which puts stress on the back. At a conveyor workstation it may be necessary, for example, to reduce the width of the belt feeding the material, to guide the products closer to the workstation by means of a boundary on the belt or to use a second person on the other side of the belt.

Appropriate depths of foot and leg room are also a precondition for working close to the body. The foot room depth F is made up of the base set-back and the protrusion of the worktop and should be at least 15 cm. The protrusion of the worktop should be at least 8 cm so that the legroom depth B at knee height is sufficient.



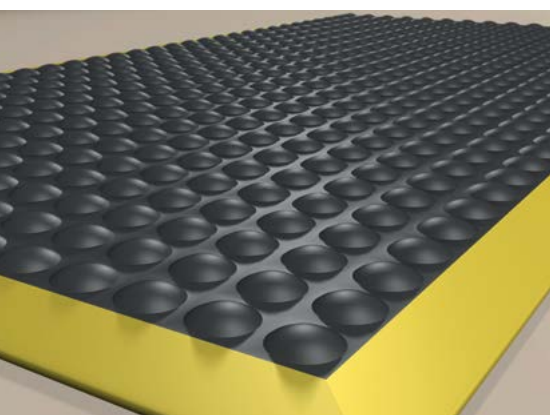
Standing aids

If standing work cannot be avoided, check whether a standing aid can be used. A standing aid absorbs up to 60 % of the body weight, reducing the stress on circulation, joints, ligaments and tendons.



Workplace mats

Workplace mats, also called anti-fatigue mats or ergo mats, are mats with cushioning properties that relieve the joints at standing workplaces and have a heat-insulating effect.



Footwear for standing jobs should support and protect the foot while not restricting free movement of said. A heel height between 2 and 4 cm guarantees an even distribution of weight over the entire foot. The heel should be wide enough to prevent twisting to the side. A good flexibility of the sole should be given so that the foot can roll easily.



Work organisation

With organisational measures the stress of standing permanently can be avoided, e. g. by job rotation. A regular alternation between sitting, standing and walking is recommended. A balanced workload should include about 60 % sitting, about 30 % standing and about 10 % walking.

Workbreaks should be arranged so that affected workers can spend the breaks sitting, if necessary with their legs elevated.

Correct standing at work is possible by alternating use of the musculo-skeletal system. This includes

- standing symmetrically on both legs
- standing with the legs hip-width apart

- alternating the supporting leg
- putting one leg in an elevated position
- leaning or supporting the upper body (e. g. using a standing aid)
- relief and relaxation exercises

If necessary, compression stockings can be worn – respecting medical advice – to relieve the vein and lymphatic system.

In leisure time, movements to compensate the standing work should absolutely be applied.

Use the **risk assessment** to systematically identify and eliminate ergonomic hazards. For this purpose, the specific work situations must be considered, evaluated and documented.



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